The South Carolina
Forest Steward
Spring 2000

In This Issue.....

The forestry community is extremely concerned over regulations proposed by the Environmental Protection Agency regarding Total Maximum Daily Load allowances for pollutants in streams and waterways. The new rules would eliminate the designation of forestry activities as a nonpoint source, reversing a 27- year determination under the Clean Water Act. This would open the door for the agency to require permits near certain waterways for harvesting, site preparation, reforestation, prescribed burning, thinning and other forest management activities. We hope to provide more details once the regulations have been finalized. Meanwhile this ruling could become very burdensome to landowners and unnecessarily so considering that the industry already has an effective Best Management Practices program in place to protect water quality. The program is monitored by the South Carolina Forestry Commission and their recently published report by Darryl Jones is summarized in *An Update on South Carolina's Forestry Best Management Practices.* The report clearly demonstrates that voluntary state-level programs can be successful without additional regulation by the federal government.

Another important issue to forest landowners is the use of fire as a forest management tool. Liability associated with fire usage is often a major concern, particularly where forests interface with residential sites. This problem is addressed by Bob Franklin in *Protecting Homes From Wildfire.* Also, when using fire as a tool and where wildfire is a potential threat, containment is an absolute necessity. In *Permanent Firebreaks: A Useful Land Management Tool* Bob discusses advantages of and methods for establishing firebreaks..

Larry Nelson and Bob Franklin, Coeditors

An Update on South Carolina's Forestry Best Management Practices

Darryl Jones, South Carolina Forestry Commission

The South Carolina Forestry Commission's report, *Implementation Monitoring of Forestry Best Management Practices for Harvesting and Site Preparation in South Carolina 1997-1999,* shows that a voluntary program can be highly successful in safeguarding water quality during forestry operations.

The Best Management Practices manual, published in 1994, provides guidelines for protecting water quality when conducting forestry operations. Periodic monitoring is conducted to determine how well the guidelines are being followed.

In previous studies, compliance with timber harvesting and site preparation Best Management Practices (BMPs) has been examined. A new study examined compliance with harvesting and site preparation BMPs on the same sites during three annual visits. The first visit (1997) documented compliance with timber harvesting BMPs on all sites. During subsequent visits (1998, 1999) data was collected on how long it took to prepare the site for planting, what species were planted, the amount of natural regeneration, and the degree of site stabilization.

Harvesting Compliance Results: 91.5%

The harvesting portion of the report covers road construction, stream crossings, streamside management zones, and logging systems.

In the new study, compliance with timber harvesting BMPs rose to 91.5%. The initial survey of BMP compliance in South Carolina, conducted in 1990, showed an 84.5% compliance with harvesting BMPs.

Site Preparation Compliance Results: 98%
The site preparation portion evaluated compliance with use of chemicals, prescribed fire, and mechanical methods of site preparation.

Overall site preparation compliance rose to 98% from 86.4% on the 1996 survey. Chemical site preparation and prescribed burning compliance numbers improved dramatically, rising from 88.3% and 70.4% respectively to 100%.

Site Conversion, Regeneration and Stabilization

Three percent of the sites being monitored were converted to uses other than forestry.

Ninety-seven percent of the sites were planted in loblolly pine. The remaining three percent were planted in longleaf pine.

On sites that regenerated naturally, 91.6% were well-stocked two years after harvest. The most commonly occurring species were loblolly pine, oak, and sweetgum.

Based on visual estimates of the amount of ground cover present, even high traffic areas on monitored sites were well vegetated within a period of two years. This indicates that naturally occurring grasses and annual vegetation are generally stabilizing sites after one growing season.

Study Methods

Monitored sites were randomly selected tracts harvested between mid 1996 and mid 1997, at least ten acres in size, and were located from aerial observation. All categories of ownership were represented, including public lands, forest industry, and small and large private landowners. All landowners were personally contacted and agreed to participate in the survey.

Funding for the study is provided by the South Carolina Forestry Commission and the Environmental Protection Agency.

Conclusions

"Since its inception, the Forestry Commission's BMP program has demonstrated that a non-regulatory approach to preventing and minimizing nonpoint source pollution from forestry activities can be effective," says Environmental Management Coordinator Darryl Jones.

To further encourage the use of BMPs, Jones adds, the Forestry Commission offers courtesy BMP exams to landowners, loggers and foresters who are planning or conducting forestry activities.

Participation in the South Carolina Forestry Association's TOP (Timber Operations Professional) Logger training and the cooperation of forestry industry have increased awareness among loggers and landowners of the vital role BMPs play in protecting water quality and site productivity.

The BMP monitoring report is available in booklet form or on the Forestry Commission's internet website at: http://www.state.sc.us/forest/BMP99.htm.

Protecting Homes From Wildfire

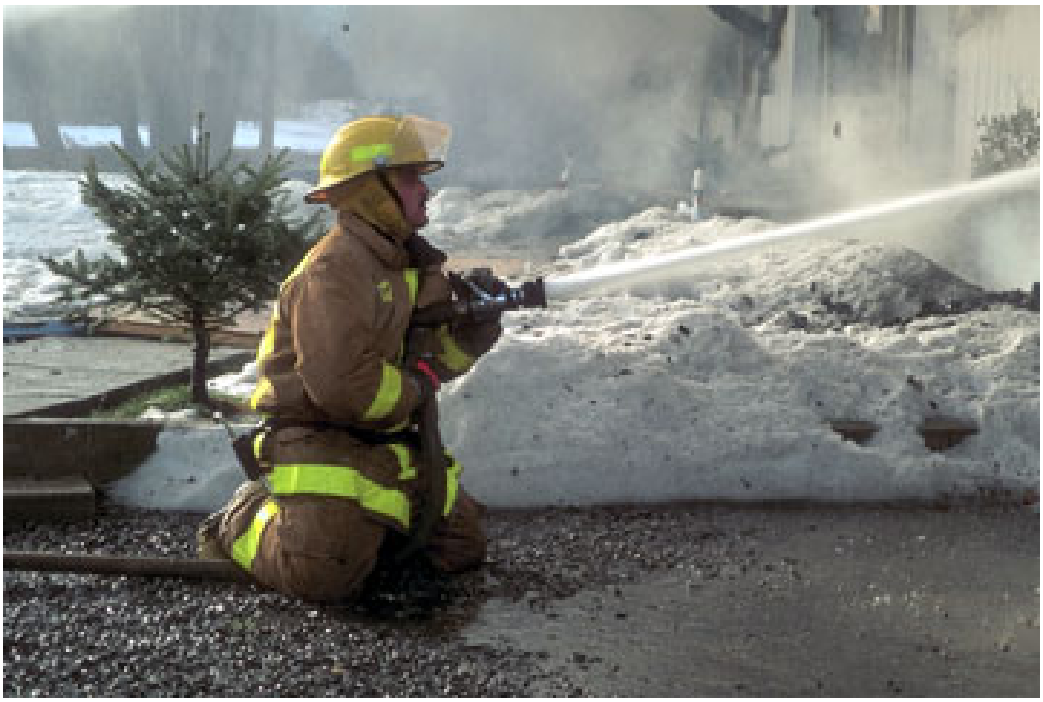
Robert M. Franklin, Area Extension Agent, Clemson Extension

You might wonder why we should be worried about wildfire in South Carolina. You only have to look at the heartache and property damage caused by the Florida wildfires or ask anyone in Volusia County, Florida who lost a home during the 1998 fire season. What follows are some common-sense approaches that homeowners and subdivisions can use to reduce the chances of wildfire destroying their homes or neighborhoods.

We've all seen those images on the TV screen. Wildfires, brought on by El Nino induced drought, destroying homes in northeastern Florida during the summer of 1998. Could it happen here? Quite possibly, given the right combination of dry weather, wind and time of the year, homes and subdivisions in rural areas of South Carolina could be at risk from wildfires.

You might ask, "Well, what can a person do to protect their home?" The answer is for homeowners

to take precautions that can enable firefighters to better do their jobs, and reduce the flammability of your home and neighborhood. Here are some tips that can help homeowners living on the suburban/wildland fringe:



- Make sure fire fighting equipment can travel down the driveway. The drive should be at least ten feet wide and adjacent vegetation should be trimmed back 3 feet or more on both sides. Keep overhanging vegetation clear to a height of 10 feet or more.

- Remove debris such as leaves and pinestraw from roofs and gutters. Consider screening gutters to prevent this debris from accumulating.

- Use spark arrestors on chimneys. A heavy-duty screen with half-inch mesh works well.

- To assist firefighters and emergency vehicles, street addresses should be between 3 and 6 feet from the ground and clearly visible 100 feet away. The 911 emergency system generally requires that house numbers be three inches high and reflective.

- Be sure that your roof is made of a fire-retardant material.

- Keep tree limbs at least 15 feet away from your chimney. Don't allow branches to overhang your roof.

- If you heat with a fireplace or a wood stove, have the chimney or stove pipe inspected at least once a year for accumulation of soot and creosote. Clean chimneys and stove pipes according to inspection results.

- Dispose of fireplace, woodstove or barbecue ashes safely by placing in a metal container, soaking in water for at least two days and then disposing of them in an area of nonflammable material.

- Remove brush, leaves and pinestraw that can act as kindling around the home. Do not allow such material to provide an unbroken path of fuel leading directly to your house.

- Avoid using highly flammable landscape plants such as wax myrtle, native hollies, juniper, cedar and tall grasses such as pampas grass in the immediate vicinity of the house.

- Houses, porches and mobile homes should have their crawl spaces enclosed or underpinned with nonflammable skirting or screening. Keep leaves, pinestraw and branches from accumulating there. Consider mulching the area immediately around the home with a 12 to 18 inch strip of gravel or rock and keep this area free of any trash.

- Keep the woodpile at least 40 feet from the house.

- Beware of fiberglass vents in the attic that can melt under intense heat and allow embers to enter the attic.

- Keep a ladder handy, in case a burning ember lands on the roof. Have a shovel, rake and pails available, as well as a garden hose at least 100 feet long that is connected to an outside water source.

- If you have a pool, pond or stream on your property, make sure that a fire truck can access it to reload its tank. The Natural Resources Conservation Service has been working with rural residents and fire departments to install dry hydrants in farm ponds for easy access for fire trucks to fight rural wildfires and home fires. Contact them for more information.

- Maintain an area free of flammable vegetation at least 30 feet around your home or property line, whichever is closest. This does not include individual trees or shrubs, as long as they do not provide a means of rapidly transporting fire from the surrounding natural vegetation to your house. Prune branches on tree trunks up to at least 10 feet in height to prevent fire from climbing them.

- Finally, encourage the owners of adjacent pine forests to use periodic prescribed bums to reduce and control the brush and leaf litter that could fuel a wildfire. Regular use of prescribed fire in pine forests is one of the most economical ways to reduce the hazard of wildfire.

These simple, common-sense precautions can minimize the risk of wildfire in and around rural residences and subdivisions. If practiced throughout neighborhoods, they can facilitate the fighting of wildfire and limit the loss of personal property. You should encourage your neighbors to follow these precautions!

For further information on preventing wildfire from threatening your home, contact the South Carolina Forestry Commission or your local fire department.

Permanent Firebreaks: A Useful Land Management Tool

Robert M. Franklin, Area Extension Agent, Clemson Extension

More and more woodland owners in South Carolina are using prescribed fire on their lands to reduce brush competition in their pine forests, improve wildlife habitat, and decrease the probability of a catastrophic wildfire. When using prescribed burning, a plowed firebreak is established around the area to be treated with fire. These firebreaks are usually made by a plow pulled by a small bulldozer or similar type equipment. Firebreaks created like this are narrow, being only 2 feet or so in width and temporary. Leaves and other debris will fall into the break and in a short time the firebreak is no longer useful.

Many landowners, to avoid the aggravation of having to replow firebreaks every two or three years, and for greater protection against wildfires, are establishing permanent firelanes. Firelanes differ from firebreaks in that they are wider, longer lasting and more functional. Generally firelanes are wide enough to allow passage of pickup trucks and farm equipment. Periodic maintenance, primarily through mowing, ensures that the firelane will last a number of years. In addition to the role played in fire suppression, firelanes can improve aesthetics, recreational opportunities and wildlife habitat.

Firelane Specifications

Permanent firelanes should be cleared to mineral soil. Trees, not harvested or otherwise utilized and other material impeding access, should be removed. Constructed firelanes should be at least 10 to 12 feet in width. Have firelanes run with the contour of the land rather than against it. Where that is not possible, be sure water bars are installed at proper intervals to slow water movement across the ground surface. Check the South Carolina Forestry Commission's Best Management Practices (BMPs) for specifications on water bars and other erosion control devices.

It is essential for any lane running against contour to have adequate ground cover to prevent erosion. As a suitable year-round cover planting, cleared firelanes should be seeded with Pensacola bahiagrass at a rate of 20 pounds per acre and ryegrass at a rate of 45 pounds per acre. Crimson clover can be added at a rate of 20 pounds per acre. This mixture can be planted in September. Lime and fertilize according to soil test results. The ryegrass will provide a source of winter grazing for deer. Turkeys will utilize ryegrass and clover in late winter and early spring. In addition, the bahiagrass will provide excellent "bugging" areas for turkey polts and quail chicks in the late spring and summer.

Other Considerations

Landowners wishing to improve aesthetics and wildlife habitat can opt to establish other plants on their firelanes. Once introduced into an area, many species only need periodic burning, mowing or discing to reestablish themselves. Some of the plants that can be used to accomplish this include; beggarweed, milkpea, partridge pea, cowpeas, vetches and other species of clover. The Clemson Extension Service publication "Wildlife Planting Guide and Native Wildlife Plants in South Carolina " is a valuable reference containing seeding rates, planting dates and management tips and is available from your local County Agents office for $8.50. Remember though, different species may require more sunlight and higher fertility requirements. Consult with your local County Extension Agent or a knowledgeable wildlife biologist to determine which plantings will be best for your property.

Finally, how many firelanes do you need? That will depend on the landowners goals and objectives and how much money can be invested into firelane construction. In general, place firelanes around each burn unit. You may not wish to place firelanes between upland areas and wetlands. The abrupt edge created by a firelane in these areas is unnatural and excludes many transition zone plants and associated wildlife habitat. Fire can be allowed to

bum into these wetland zones as fire intensity usually dies down and the fire will bum out as it encounters the wetter area. If firelanes must be placed adjacent to these transition zones, use light discing or mowing.

If the area is 100 acres or more, you may wish to break it up with firelanes separating every 20 to 30 acres.

Permanent firelanes are functional. In addition to protecting against wildfire, they can also be developed and maintained to improve aesthetic qualities and wildlife habitat.

For additional information on permanent firelanes, contact your local South Carolina Forestry Commission office or Clemson Extension office.

Fallow Discing for Wildlife

Robert M. Franklin, Area Extension Agent, Clemson Extension

Did you ever wonder if there was a vegetation management tool that could enhance wildlife habitat and cost less than planting food plots? Well, there is! Its called fallow discing and it can supplement your wildlife food plantings by encouraging native vegetation that wildlife use for food.

Fallow discing is an effective way to manage and maintain wildlife openings in forests without having to go to the expense of clearing, fertilizing and planting food patches. The purpose of discing is to disturb the soil and reduce dense grass cover, not prepare a seed bed. Discing increases available nesting cover for quail, improves brood habitat and enhances

quail movement throughout the stand. Desirable seed-producers, such as partridge pea and other native legumes are dependent on occasional soil disturbance and discing encourages their growth. Insects, which are an important food source for nesting bobwhites, turkeys and their broods, are more abundant in the new succulent vegetation stimulated by discing. White-tailed deer will utilize

Upcoming Events

Meetings	June 3	Master Tree Farmer Annual Conference. Riverbanks Zoo, Columbia, SC. 9:30 am - 3:30 pm. Contact George Kessler at (864) 656-4836.
	October 16-18	Longleaf Alliance Biennial Conference, Alexandria, VA. For details call (334) 222-7779.
Landowner Association Meetings	May 8	Laurens County Forestry Association Meeting – "Estate Planning." Clemson Extension Auditorium, Laurens, SC. 7:00 p.m. Contact Phil Epps at (803) 276-1091.
	May 9	Newberry County Forestry Association Tour – "Hardwood Sawmill." Beal Lumber Company, Little Mountain, SC. 3:00 p.m. Contact Phil Epps at (803) 276-1091.
	May 13	Salkehatchie Forestry Association Kickoff Meeting. Bramlett Plantation, Allendale County, SC. 2:00 - 7:00 p.m. Contact Bob Franklin at (843) 549-2595.
	May 16	Chesterfield County Forestry Association Meeting – "Willamette MDF Mill Presentation." Chesterfield High School. 7:00 p.m. Contact Phil Epps at (803) 276-1091.
	May 23	Chester County Forestry Association Meeting – "US Forest Service – Activities on our National Forests." Punt's Restaurant, Chester, SC. 7:00 p.m. Contact Phil Epps at (803) 276-1091.
	June 6	Fairfield County Forestry Association Meeting – "Tree Farms." Clemson Extension Building, Winnsboro, SC. 7:00 p.m. Contact Phil Epps at (803) 276-1091.
	July 17	Kershaw County Forest Landowner Association Meeting – "Consulting Forester Information." 7:00 p.m. Extension Homemakers Building, Camden, SC. Contact Phil Epps at (803) 276-1091.

the vegetation encouraged by this practice and many nongame birds will be attracted to the insects and seed-bearing plants.

Fallow discing is usually conducted on a two to four-year rotation during the fall and winter. Good places to disc are edges around wildlife food plots, areas adjacent to interior woods roads, old log decks, and openings in the forest caused by bark beetles.

In South Carolina, the timing and frequency of fallow discing will vary in different geographic areas and site to site. Its best to contact your local South Carolina Department of Natural Resources Biologist for specific recommendations. One of the exciting things about using fallow discing is that you can experiment with different prescriptions and find out what works best on your place!

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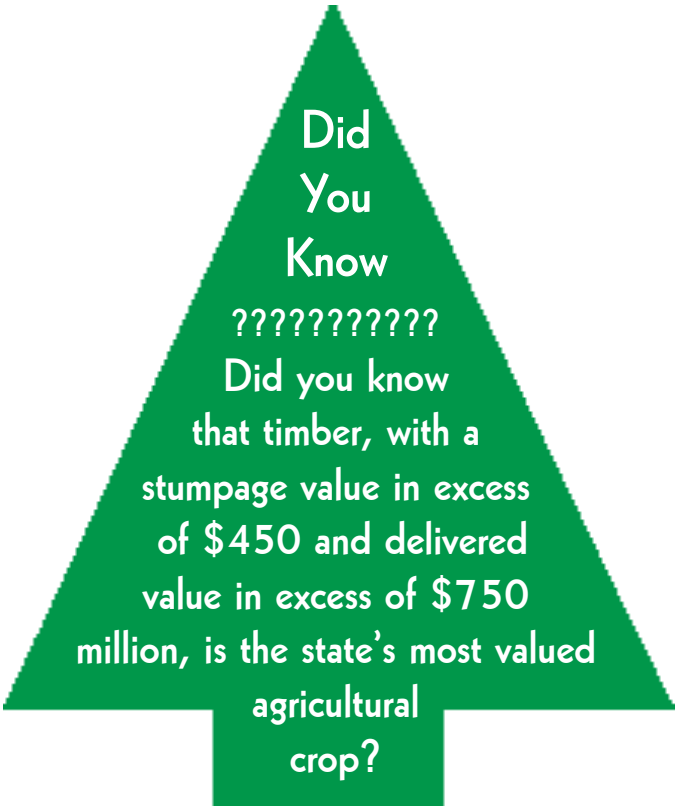

Questions about this newsletter, submissions and requests for subscriptions should be directed to: Editor, *Forest Steward* Newsletter, Clemson University Cooperative Extension Service, Department of Forest Resources, 272 Lehotsky Hall, Box 340331, Clemson, SC 29634-0331. Phone: 864/656-2479.

The Forest Steward

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The South Carolina Forest Steward Newsletter is sponsored by the Forest Stewardship Program in South Carolina. For more information on the Forest Stewardship Program, contact Ron Ferguson at the South Carolina Forestry Commission, 803/896-8846. *The South Carolina Forest Steward* is compiled and edited by Larry Nelson, Extension Forester at Clemson University, and Bob Franklin, Area Forestry & Wildlife Agent, Walterboro, South Carolina.